ï

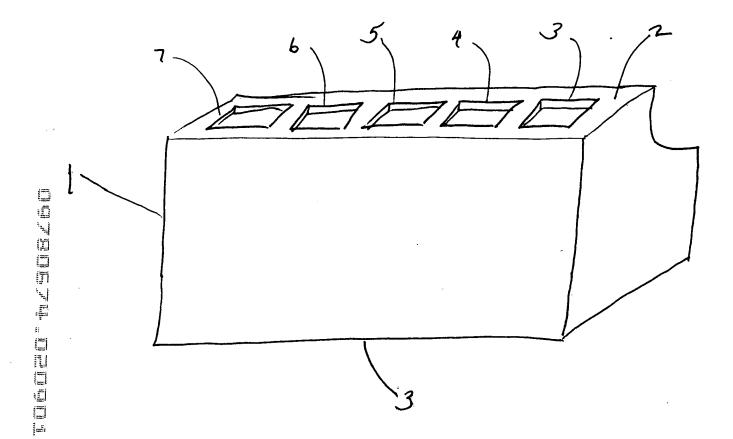


FiG. 2

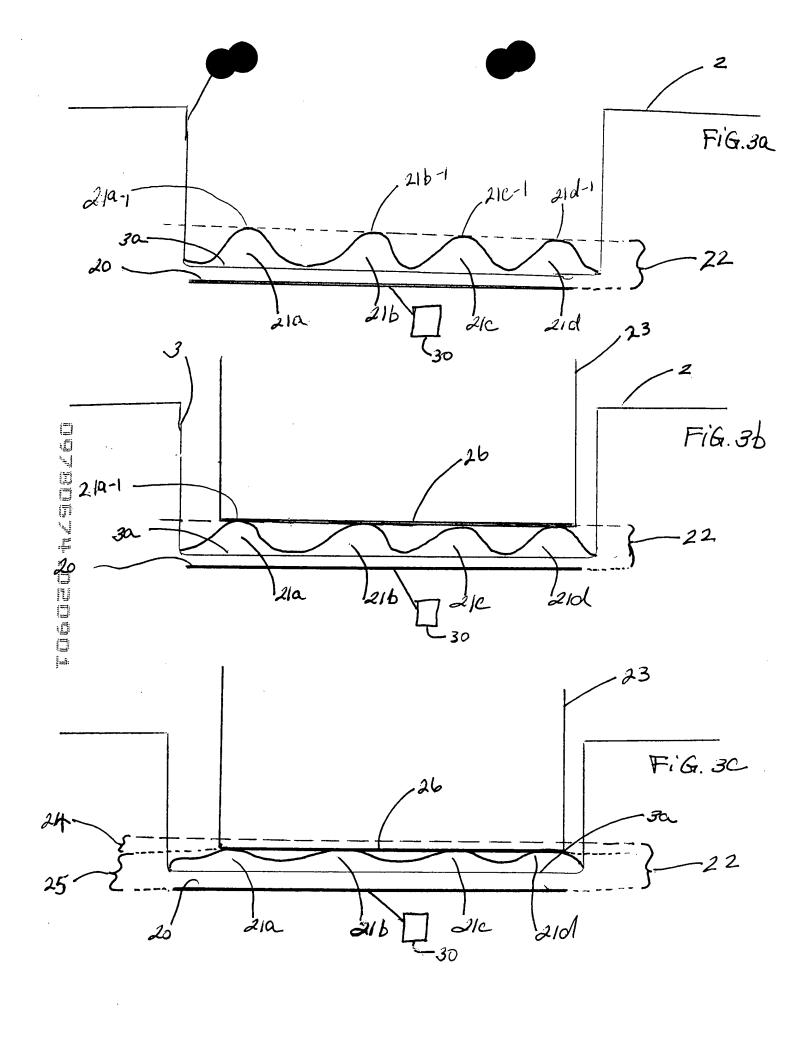
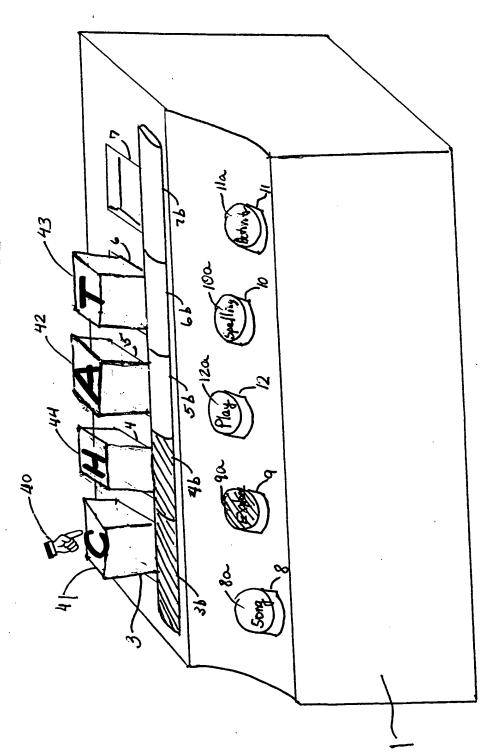
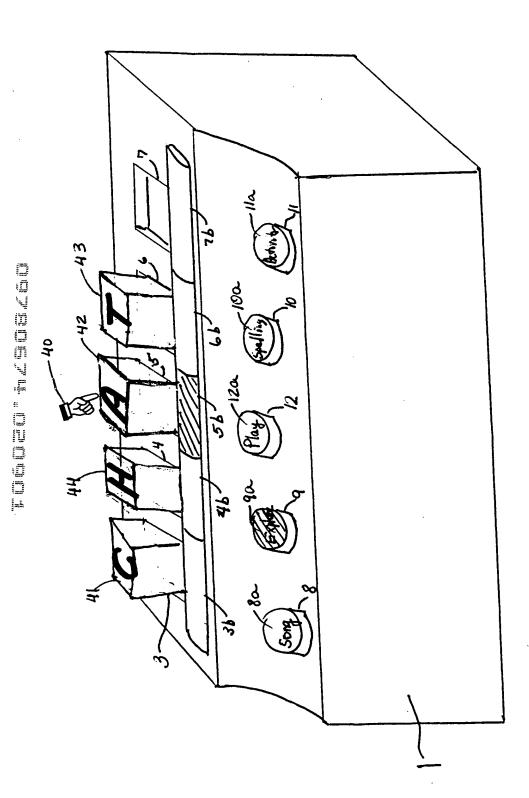


Fig. 4a



[(G1. 46



[G. 4C

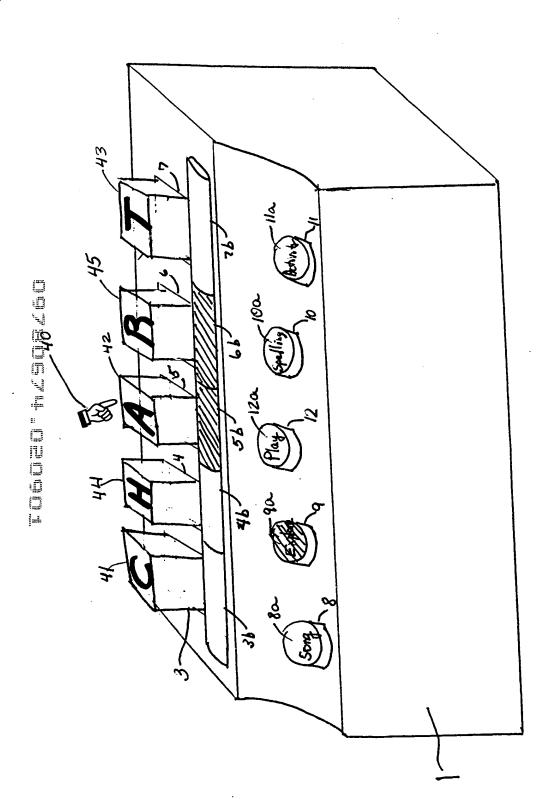


Fig. 4d

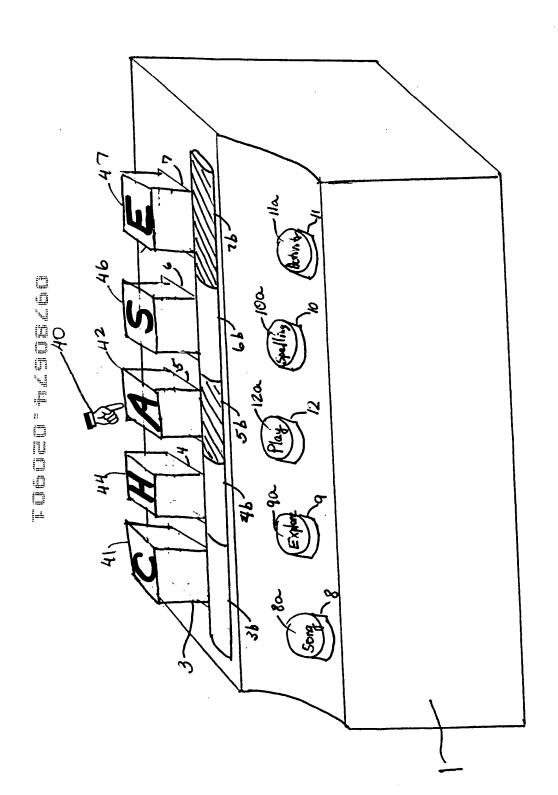


Fig. 4e

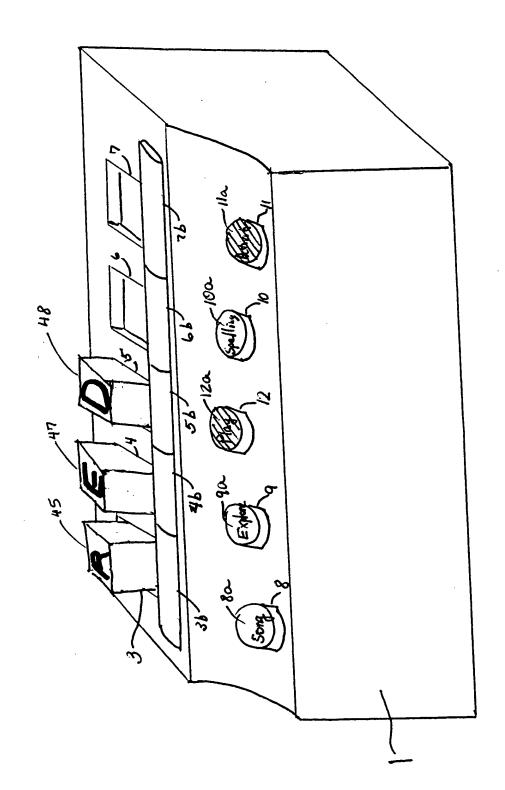


Fig. 5

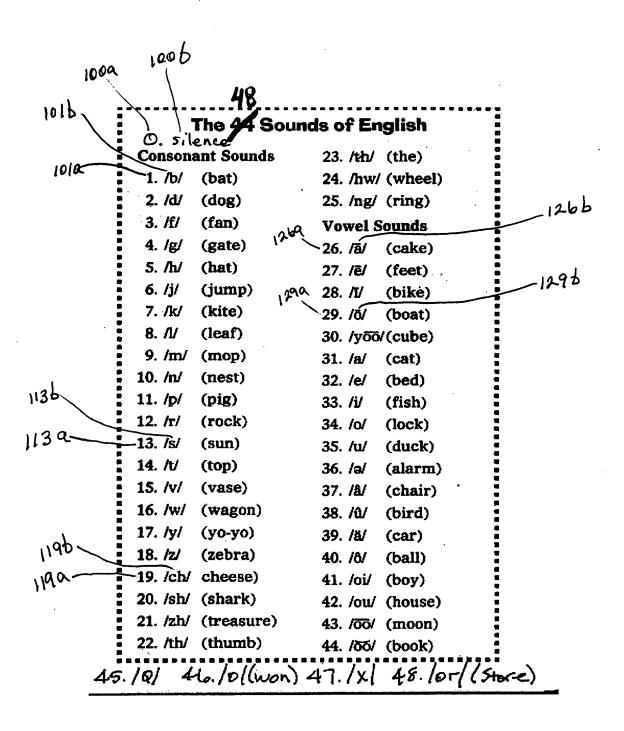


Fig. 6

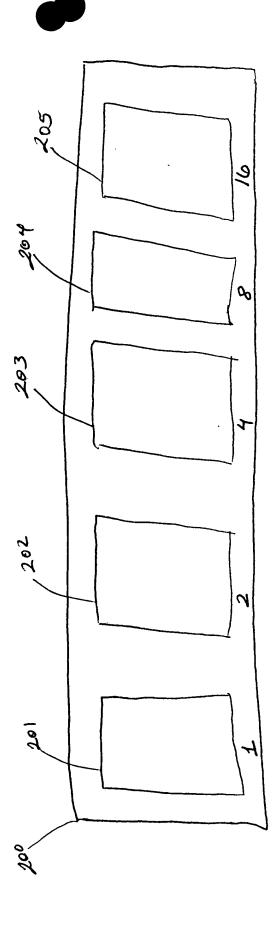


FiG. 7a

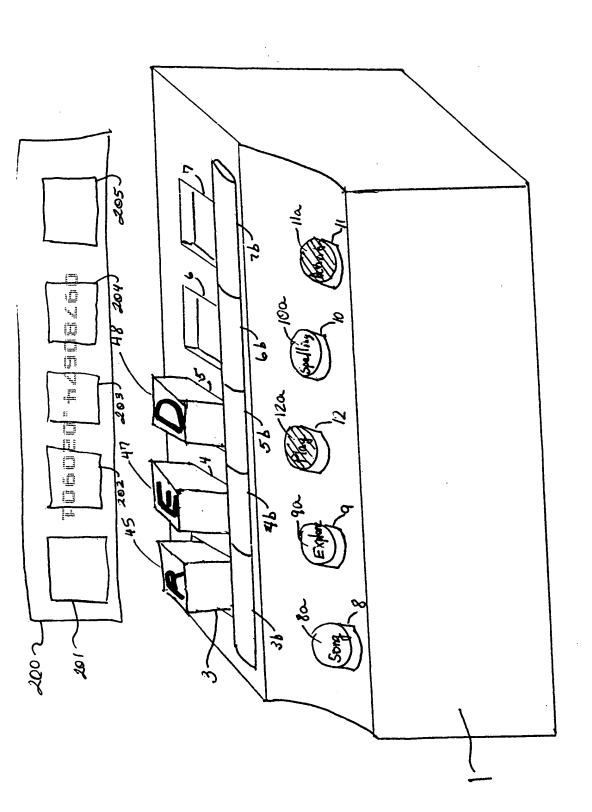


Fig. 76

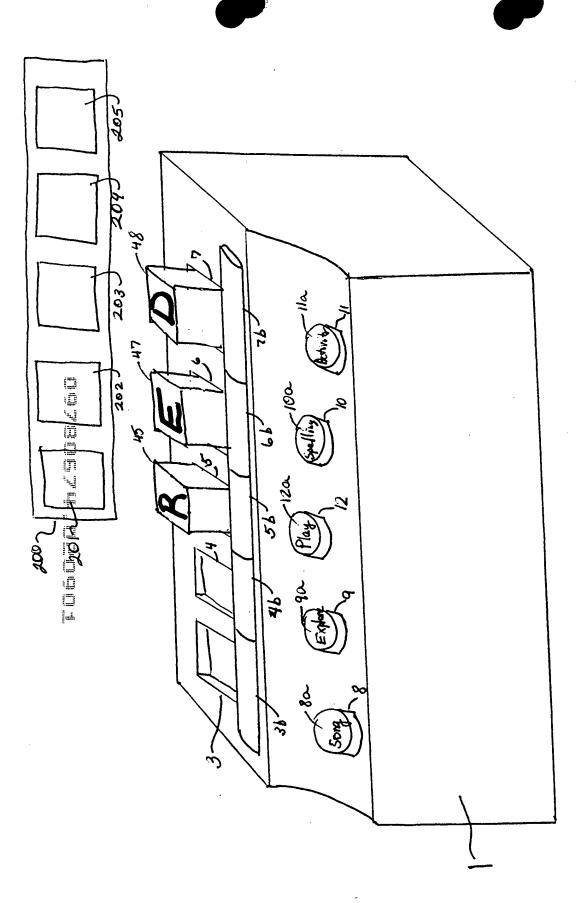


FIG. 7C

```
/worddict 2048 dict dup begin
                   /a [ "a" [ "26" ] [ "01" ] true] def
                   /i [ "i" [ "28" ] [ "01" ] true ] def
                   /am [ "am" [ "31" "9" ] [ "01" "02" ] true ] def
                    /an [ "an" [ "31" "10" ] [ "01" "02" ] true ] def
                   /as [ "as" [ "31" "18" ] [ "01" "02" ] true ] def
                   /at [ "at" [ "31" "14" ] [ "01" "02" ] true ] def
               8. /be [ "be" [ "1" "27" ] [ "01" "02" ] true ] def
               9. /by [ "by" [ "1" "28" ] [ "01" "02" ] true ] def
               10. /do [ "do" [ "2" "43" ] [ "01" "02" ] true ] def
               11. /go [ "go" [ "4" "29" ] [ "01" "02" ] true ] def
               12. /he [ "he" [ "5" "27" ] [ "01" "02" ] true ] def
               13. /if [ "if" [ "33" "3" ] [ "01" "02" ] true ] def
               14. /in [ "in" [ "33" "10" ] [ "01" "02" ] true ] def
               15. /is [ "is" [ "33" "18" ] [ "01" "02" ] true ] def
               16. /it [ "it" [ "33" "14" ] [ "01" "02" ] true ] def
               17. /me [ "me" [ "9" "27" ] [ "01" "02" ] true ] def
18. /my [ "my" [ "9" "28" ] [ "01" "02" ] true ] def
               19. /no [ "know" [ "10" "29" ] [ "01" "02" ] true ] def
               20. /of [ "of" [ "36" "15" ] [ "01" "02" ] true ] def
               21. /on [ "on" [ "34" "10" ] [ "01" "02" ] true ] def
               22. /or [ "or" [ "29" "12" ] [ "01" "02" ] true ] def
               23. /ox [ "ox" [ "34" "47" ] [ "01" "02" ] true ] def
E
13°2,
               24. /so [ "sew" [ "13" "29" ] [ "01" "02" ] false ] def
               25. /to [ "to" [ "14" "43" ] [ "01" "02" ] true ] def
               26. /up [ "up" [ "35" "11" ] [ "01" "02" ] true ] def
                                                                                  305 306
               27. /us [ "us" [ "35" "13" ] [ "01" "02" ] true ] def
               28. /we [ "we" [ "16" "27" ] [ "01" "02" ] true ] def
                           30,3
                                                                                                     . 308
                          ["ace" [ "26" "13" "0" ] [ "05" "02" "05" ] true ] def
               30. /act ["act" ["31" "7" "14" ] [ "01" "02" "04" ] true ] def
                                                                                                  309
               31. /age [ "age" [ "26" "6" "0" ] [ "05" "02" "05" ] true ] def
               32. /ago [ "ago" [ "36" "4" "29" ] [ "01" "02" "04" ] true ] def
               33. /air ["air" ["37" "37" "12"] ["03" "03" "04"] true] def
               34. /all ["all" ["40" "8" "8"] ["01" "02" "04"] true ] def
               35. /and ["and" ["31" "10" "2" ] [ "01" "02" "04" ] true ] def
               36. /ant ["ant" ["31" "10" "14"] ["01" "02" "04"] true] def
               37. /any ["any" ["32" "10" "27" ] [ "01" "02" "04" ] true ] def
               38. /ape ["ape" ["26" "11" "0" ] [ "05" "02" "05" ] true ] def
               39. /are ["are" ["39" "12" "0"] ["03" "03" "04"] true ] def
               40. /arm [ "arm" [ "39" "12" "9" ] [ "03" "03" "04" ] true ] def
               41. /art [ "art" [ "39" "12" "14" ] [ "03" "03" "04" ] true ] def
               42. /ask [ "ask" [ "31" "13" "7" ] [ "01" "02" "04" ] true ] def
               43. /ate ["ate" ["26" "14" "0"] ["05" "02" "05"] true] def
               44. /bad ["bad" ["1" "31" "2"] ["01" "02" "04"] true ] def
               45. /bag ["bag" ["1" "31" "4" ] ["01" "02" "04" ] true ] def
               46. /bar ["bar" ["1" "39" "12" ] ["01" "02" "04" ] true ] def
```





```
47. /bat ["bat" ["1" "31" "14" ] ["01" "02" "04" ] true ] def
         ["bed" ["1" "32" "2" ] ["01" "02" "04" ] true ] def
48. /bed
          ["bee" ["1" "27" "27" ] ["01" "06" "06" ] true ] def
49. /bee
          ["bet" ["1" "32" "14" ] ["01" "02" "04" ] true ] def
50. /bet
          ["big" ["1" "33" "4" ] ["01" "02" "04" ] true ] def
52. /bit ["bit" ["1" "33" "14" ] ["01" "02" "04" ] true ] def
           ["bow" ["1" "29" "29" ] ["01" "06" "06" ] true ] def
53. /bow
           ["box" ["1" "34" "47" ] ["01" "02" "04" ] true ] def
54. /box
           ["boy" ["1" "41" "41" ] ["01" "06" "06" ] true ] def
55. /boy
           ["bud" ["1" "35" "2" ] ["01" "02" "04" ] true ] def
56. /bud
           ["bug" ["1" "35" "4" ] ["01" "02" "04" ] true ] def
57. /bug
           ["bun" ["1" "35" "10" ] ["01" "02" "04" ] true ] def
58. /bun
           ["bus" ["1" "35" "13" ] ["01" "02" "04" ] true ] def
59. /bus
          ["but" ["1" "35" "14" ] ["01" "02" "04" ] true ] def
60. /but
           ["by" ["1" "28" "28" ] ["01" "06" "06" ] true ] def
61. /buy
          ["by" ["1" "28" "0"] ["01" "06" "06"] true ] def
62. /bye
          [ "cab" [ "7" "31" "1" ] [ "01" "02" "04" ] true ] def
63. /cab
          [ "can" [ "7" "31" "10" ] [ "01" "02" "04" ] true ] def
64. /can
          ["cap" [ "7" "31" "11" ] [ "01" "02" "04" ] true ] def
65. /cap
          [ "car" [ "7" "39" "12" ] [ "01" "02" "04" ] true ] def
66. /car
          ["cat" ["7" "31" "14" ] ["01" "02" "04" ] true ] def
67. /cat
          [ "cop" [ "7" "34" "11" ] [ "01" "02" "04" ] true ] def
68. /cop
           ["cow" ["7" "42" "42" ] ["01" "06" "06" ] true ] def
69. /cow
70. /cry [ "cry" [ "7" "12" "28" ] [ "01" "02" "04" ] true ] def
         ["cup" [ "7" "36" "11" ] [ "01" "02" "04" ] true ] def
          [ "cut" [ "7" "36" "14" ] [ "01" "02" "04" ] true ] def
72. /cut
73. /dad [ "dad" [ "2" "31" "2" ] [ "01" "02" "04" ] true ] def
74. /day [ "day" [ "2" "26" "26" ] [ "01" "06" "06" ] true ] def
75. /den ["den" ["2" "32" "10" ] ["01" "02" "04" ] true ] def
          ["did" [ "2" "33" "2" ] [ "01" "02" "04" ] true ] def
77. /dig ["dig" [ "2" "33" "4" ] [ "01" "02" "04" ] true ] def
78. /dog ["dog" ["2" "40" "4" ] ["01" "02" "04" ] true ] def
79. /dot ["dot" ["2" "34" "14" ] ["01" "02" "04" ] true ] def
80. /dry [ "dry" [ "2" "12" "28" ] [ "01" "02" "04" ] true ] def
         ["ear" ["27" "27" "12" ] ["03" "03" "04" ] true ] def
82. /eat ["eat" ["27" "27" "14"] ["03" "03" "04"] true ] def
          ["egg" ["32" "4" "4" ] ["01" "06" "06" ] true ] def
          ["end" ["32" "10" "2" ] ["01" "02" "04" ] true ] def
84. /end
85. /eye [ "eye" [ "28" "28" "0" ] [ "04" "05" "07" ] true ] def
86. /fan [ "fan" [ "3" "31" "10" ] [ "01" "02" "04" ] true ] def
87. /far [ "far" [ "3" "39" "12" ] [ "01" "02" "04" ] true ] def
88. /fat ["fat" [ "3" "31" "14" ] [ "01" "02" "04" ] true ] def
89. /fed [ "fed" [ "3" "32" "2" ] [ "01" "02" "04" ] true ] def
90. /few [ "few" [ "3" "30" "30" ] [ "01" "06" "06" ] true ] def
91. /fit ["fit" ["3" "33" "14"] ["01" "02" "04"] true] def
92. /fix ["fix" [ "3" "33" "47" ] [ "01" "02" "04" ] true ] def
93. /fly ["fly" ["3" "8" "28" ] ["01" "02" "04" ] true ] def
94. /for [ "for" [ "3" "29" "12" ] [ "01" "02" "04" ] true ] def
95. /fox ["fox" ["3" "34" "47" ] ["01" "02" "04" ] true ] def
96. /fry [ "fry" [ "3" "12" "28" ] [ "01" "02" "04" ] true ] def
97. /fun ["fun" ["3" "36" "10" ] ["01" "02" "04" ] true ] def
98. /fur ["fur" [ "3" "38" "12" ] [ "01" "02" "04" ] true ] def
99. /gap [ "gap" [ "4" "31" "11" ] [ "01" "02" "04" ] true ] def
100./get ["get" ["4" "32" "14" ] ["01" "02" "04" ] true ] def
```





101./gnu ["gnu" ["0" "10" "43"] ["03" "02" "04"] true] def 102./got ["got" ["4" "34" "14"] ["01" "02" "04"] true] def 103./gum ["gum" ["4" "35" "9"] ["01" "02" "04"] true] def ["guy" ["4" "28" "28"] ["01" "06" "06"] true] def 104./guy ["had" ["5" "31" "2"] ["01" "02" "04"] true] def 105./had 106./ham ["ham" ["5" "31" "9"] ["01" "02" "04"] true] def 107./has ["has" ["5" "31" "18"] ["01" "02" "04"] true] def 108./hat ["hat" ["5" "31" "14"] ["01" "02" "04"] true] def 109./hay ["hay" ["5" "26" "26"] ["01" "06" "06"] true] def 110./hen ["hen" ["5" "32" "10"] ["01" "02" "04"] true] def 111./her ["her" ["5" "38" "12"] ["01" "02" "04"] true] def 112./hey ["hay" ["5" "26" "26"] ["01" "06" "06"] false] def 113./hid ["hid" ["5" "33" "2"] ["01" "02" "04"] true] def 114./him ["him" ["5" "33" "9"] ["01" "02" "04"] true] def 115./hip ["hip" ["5" "33" "11"] ["01" "02" "04"] true] def 116./his ["his" ["5" "33" "18"] ["01" "02" "04"] true] def 117./hit ["hit" ["5" "33" "14"] ["01" "02" "04"] true] def 118./hog ["hog" ["5" "34" "4"] ["01" "02" "04"] true] def 119./hop ["hop" ["5" "34" "11"] ["01" "02" "04"] true] def 120./hot ["hot" ["5" "34" "14"] ["01" "02" "04"] true] def 121./how ["how" ["5" "42" "42"] ["01" "06" "06"] true] def 122./hug ["hug" ["5" "35" "4"] ["01" "02" "04"] true] def 123./hum ["hum" ["5" "35" "9"] ["01" "02" "04"] true] def 124./hut ["hut" ["5" "35" "14"] ["01" "02" "04"] true] def 125./ice ["ice" ["28" "13" "0"] ["05" "02" "05"] true] def 126./ink ["ink" ["33" "10" "7"] ["01" "02" "04"] true] def 127./jam ["jam" ["6" "31" "9"] ["01" "02" "04"] true] def 128./jar ["jar" ["6" "39" "12"] ["01" "06" "04"] true] def 129./jaw ["jaw" ["6" "40" "40"] ["01" "05" "04"] true] def 130./jet ["jet" ["6" "32" "14"] ["01" "02" "04"] true] def 131./job ["job" ["6" "40" "1"] ["01" "02" "04"] true] def 132./jog ["jog" ["6" "40" "4"] ["01" "02" "04"] true] def 133./joy ["joy" ["6" "41" "41"] ["01" "06" "06"] true] def 134./jug ["jug" ["6" "35" "4"] ["01" "02" "04] true] def 135./key ["key" ["7" "27" "27"] ["01" "06" "06"] true] def 136./kid ["kid" ["7" "33" "2"] ["01" "02" "04"] true] def 137./kit ["kit" ["7" "33" "14"] ["01" "02" "04"] true] def ["lab" ["8" "31" "1"] ["01" "02" "04"] true] def 138./lab 139./lay ["lay" ["8" "26" "26"] ["01" "06" "06"] true] def 140./leg ["leg" ["8" "32" "4"] ["01" "02" "04"] true] def 141./let ["let" ["8" "32" "14"] ["01" "02" "04"] true] def 142./lid ["lid" ["8" "33" "2"] ["01" "02" "04"] true] def ["lie" ["8" "28" "0"] ["01" "06" "06"] true] def ["lip" ["8" "33" "11"] ["01" "02" "04"] true] def 144./lip 145./log ["log" ["8" "34" "4"] ["01" "02" "04"] true] def 146./lot ["lot" ["8" "34" "14"] ["01" "02" "04"] true] def 147./mad ["mad" ["9" "31" "2"] ["01" "02" "04"] true] def ["man" ["9" "31" "10"] ["01" "02" "04"] true] def 148./man ["map" ["9" "31" "11"] ["01" "02" "04"] true] def 149./map ["mat" ["9" "31" "14"] ["01" "02" "04"] true] def 150./mat ["may" ["9" "26" "26"] ["01" "06" "06"] true] def 151./may ["men" ["9" "32" "10"] ["01" "02" "04"] true] def 152./men ["met" ["9" "32" "14"] ["01" "02" "04"] true] def 153./met 154./mix ["mix" ["9" "33" "47"] ["01" "02" "04"] true] def





```
155./mom ["mom" ["9" "34" "9" ] ["01" "02" "04" ] true ] def
           [ "moo" [ "9" "43" "43" ] [ "01" "06" "06" ] true ] def
156./moo
           [ "mop" [ "9" "34" "11" ] [ "01" "02" "04" ] true ] def
157./mop
           ["mud" [ "9" "35" "2" ] [ "01" "02" "04" ] true ] def
158./mud
           ["mug" ["9" "35" "4" ] ["01" "02" "04" ] true ] def
159./mug
          ["nap" ["10" "31" "11"] ["01" "02" "04"] true ] def
160./nap
          [ "net" [ "10" "32" "14" ] [ "01" "02" "04" ] true ] def
161./net
          [ "new" [ "10" "43" "43" ] [ "01" "06" "06" ] true ] def
162./new
          [ "nod" [ "10" "34" "2" ] [ "01" "02" "04" ] true ] def
          ["not" ["10" "34" "14" ] ["01" "02" "04" ] true ] def
164./not
165./now [ "now" [ "10" "42" "42" ] [ "01" "06" "06" ] true ] def
166./nut ["nut" ["10" "35" "14" ] ["01" "02" "04" ] true ] def
167./off [ "off" [ "34" "3" "3" ] [ "01" "06" "06" ] true ] def
         ["oil" ["41" "41" "8" ] ["03" "03" "04" ] true ] def
169./old ["old" ["29" "8" "2" ] [ "01" "02" "04" ] true ] def
          ["one" ["16" "10" "0"] ["01" "02" "04"] true] def
          ["our" ["42" "42" "12" ] ["03" "03" "04" ] true ] def
171./our
          [ "out" [ "42" "42" "14" ] [ "03" "03" "04" ] true ] def
172./out
          [ "owl" [ "42" "42" "8" ] [ "01" "02" "04" ] true ] def
173./owl
          ["own" ["29" "29" "10" ] ["01" "02" "04" ] true ] def
174./own
           [ "pad" [ "11" "31" "2" ] [ "01" "02" "04" ] true ] def
175./pad
          [ "pal" [ "11" "31" "8" ] [ "01" "02" "04" ] true ] def
176./pal
          ["pan" ["11" "31" "10" ] ["01" "02" "04" ] true ] def
          ["pat" ["11" "31" "14" ] ["01" "02" "04" ] true ] def
178./pat
          [ "pea" [ "11" "27" "27" ] [ "01" "06" "06" ] true ] def
179./pea
          ["pen" ["11" "32" "10" ] ["01" "02" "04" ] true ] def
180./pen
          ["pet" ["11" "32" "14" ] ["01" "02" "04" ] true ] def
          ["pie" ["11" "28" "28" ] ["01" "06" "06" ] true ] def
182./pie
          [ "pig" [ "11" "33" "4" ] [ "01" "02" "04" ] true ] def
183./pig
184./pin ["pin" ["11" "33" "10"] ["01" "02" "04"] true] def
185./pit ["pit" ["11" "33" "14" ] ["01" "02" "04" ] true ] def
         ["pop" ["11" "34" "11" ] ["01" "02" "04" ] true ] def
186./pop
          ["pot" ["11" "34" "14" ] ["01" "02" "04" ] true ] def
187./pot
         ["put" ["11" "36" "14" ] ["01" "02" "04" ] true ] def
189./rag [ "rag" [ "12" "31" "8" ] [ "01" "02" "04" ] true ] def
190./ram ["ram" ["12" "31" "9" ] ["01" "02" "04" ] true ] def
          [ "ran" [ "12" "31" "10" ] [ "01" "02" "04" ] true ] def
191./ran
192./rap [ "rap" [ "12" "31" "11" ] [ "01" "02" "04" ] true ] def
193./rat ["rat" ["12" "31" "14" ] ["01" "02" "04" ] true ] def
         ["raw" ["12" "34" "34" ] ["01" "06" "06" ] true ] def
195./ray [ "ray" [ "12" "26" "26" ] [ "01" "06" "06" ] true ] def
196./red ["red" ["12" "31" "2" ] ["01" "02" "04" ] true ] def
         ["rib" ["12" "33" "1" ] ["01" "02" "04" ] true ] def
197./rib
         ["rid" ["12" "33" "2"] ["01" "02" "04"] true ] def
198./rid
199./rip ["rip" ["12" "33" "11" ] ["01" "02" "04" ] true ] def
200./rod [ "rod" [ "12" "34" "2" ] [ "01" "02" "04" ] true ] def
201./rot [ "rot" [ "12" "34" "14" ] [ "01" "02" "04" ] true ] def
202./row ["row" ["12" "29" "29" ] ["01" "06" "06" ] true ] def
          ["rub" ["12" "35" "1" ] ["01" "02" "04" ] true ] def
          ["rug" ["12" "35" "4" ] ["01" "02" "04" ] true ] def
204./rug
          ["run" ["12" "35" "10" ] ["01" "02" "04" ] true ] def
205./run
206./sad [ "sad" [ "13" "31" "2" ] [ "01" "02" "04" ] true ] def
207./sat [ "sat" [ "13" "31" "14" ] [ "01" "02" "04" ] true ] def
208./saw ["saw" ["13" "40" "40" ] ["01" "06" "06" ] true ] def
```

F.G. 9

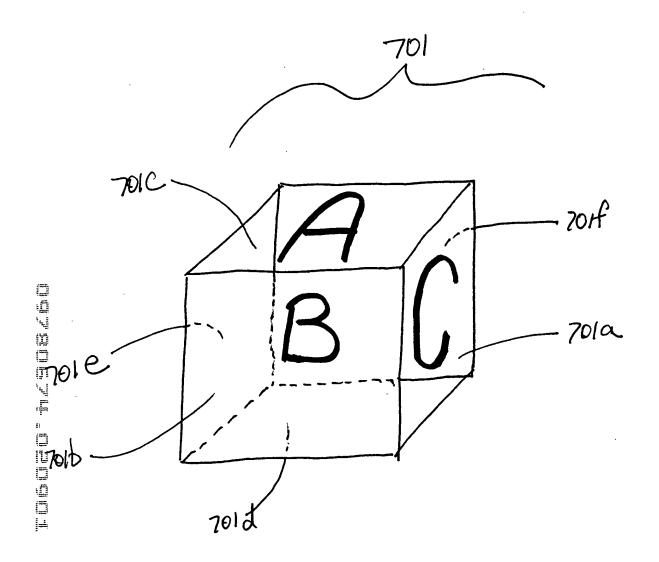


FiG. 10

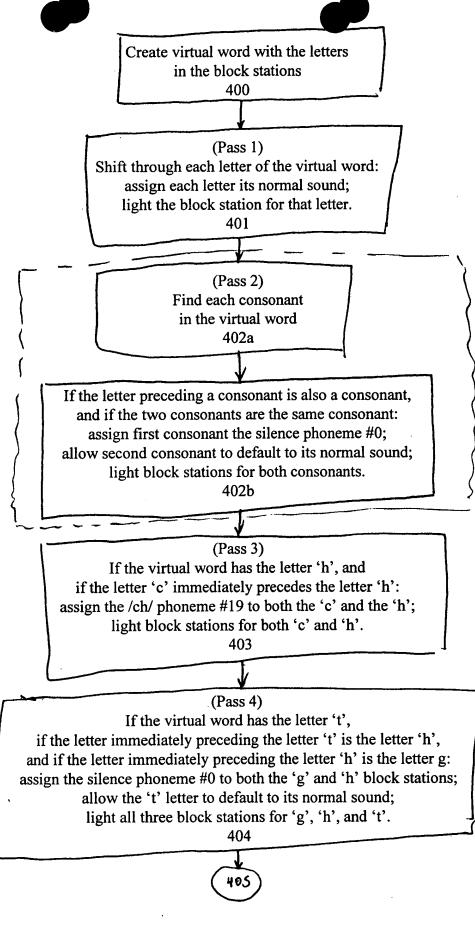


Fig. 11a



If the virtual word has the letter 'g', and if letter immediately following the 'g', is 'e' or 'i': assign the letter 'g' the /j/ phoneme #6; light both block stations for 'g', and for the 'e' or 'i'.

403

(Pass 6)

If the virtual word has the letter 'c', and if the letter immediately following the letter 'c', is 'e' or 'i': assign the letter 'c' the /s/ phoneme #13; light both block stations for 'g', and for the 'e' or 'i'.

406

(Pass 7)

If 'k' is the last letter of the virtual word, and if the letter 'k' is immediately preceded by the letter 'c': assign the /k/ phoneme #7 to both the 'k' and the 'c'; light both the 'k' and the 'c' block stations.

407

(Pass 8)

If 'k' is the first letter of the virtual word, and if the letter 'k' is followed by the letter 'n': assign the letter 'k' the silence phoneme #0; light both the 'k' and the 'n' block stations.

408

(Pass 9)

If 'w' is the first letter of the virtual word, and if the letter 'r' immediately follows the letter 'w'; assign the 'w' the silence phoneme #0; light both the 'w' and the 'r' block stations.





If the virtual word has the letter 'e', and if a second letter 'e' precedes or follows the first letter 'e'; assign both letters 'e' the /ē/ phoneme #27; light the block stations for both 'e' letters.

410

(Pass 11)

If the virtual word has the letter 'r', and if the letter 'r' is immediately preceded by a vowel, then: if the vowel is the letter 'i', assign the letter 'i' the /û/ phoneme #38; else if the vowel is the letter 'u', assign the letter 'u' the /û/ phoneme #38; else if the vowel is the letter 'e', assign the letter 'e' the /û/ phoneme #38; else if the vowel is the letter 'a', assign the letter 'a' the /ä/ phoneme #39; else if the vowel is the letter 'o', assign the letter 'o' the /ö/ phoneme #48; light the block stations for the vowel and the letter 'r'.

411

(Pass 12)

If the virtual word has the letter 'r', and if the letter 'r' is immediately preceded by the letter 'a' or the letter 'o', and if the letter 'r' is immediately followed by the letter 'e':

assign the letter 'e' the silence phoneme #0;
if the letter preceding the letter 'r' is the letter 'a', then assign the letter 'a' the /â/
phoneme #37;

else if the letter preceding the letter 'r' is the letter 'o', then assign the letter 'o' the /ö/phoneme #48;

light the block stations for the letter 'r', and 'e', and for the letters 'a' or 'o'.

412

(Pass 13)

If the virtual word ends in the letter 'y', and if the virtual word has no vowels: assign the letter 'y' the /ī/ phoneme #28; else if the virtual word ends in the letter 'y', and if the virtual word has at least one vowel: assign the letter 'y' the /ē/ phoneme #27.



Fig. 11C





(Pass 14)

If the virtual word has the letter 'y', and if the letter immediately preceding the letter 'y' is the letter 'a': assign the letter 'y' the silence phoneme #0; assign the letter 'a' the /a/ phoneme #26; light the block stations for both the 'a' and the 'y'.

414

(Pass 15)

If the last letter in the virtual word is a vowel, and
If there is only one vowel in the virtual word, then:
if the vowel is the letter 'e', assign the letter 'e' the /ē/ phoneme #27;
else if the vowel is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;
else if the vowel is the letter 'o', assign the letter 'o' the /ō/ phoneme #29.

415

(Pass 16)

If the virtual word has the letter 'h', and if the letter 'h' is immediately preceded by the letter 'g', and if the letter 'g' is immediately preceded by the letter 'i', then: assign the silence phoneme #0 to both the letters 'g' and 'h'; assign the /ī/ phoneme 28 to the letter 'i'; light the block stations for the letters 'i', 'g', and 'h'.

416

(Pass 17)

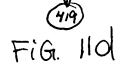
If the virtual word has the letter 'o', and if the letter 'o' is immediately preceded by or immediately followed by another letter 'o', then:

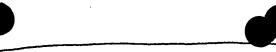
assign both letter 'o's the /ōo/ phoneme #43; and light the block stations for both letter 'o's.

417

(Pass 18)

If the virtual word has the letter 'w', and if the letter 'w' is immediately preceded by the letter 'e', then: assign both letter 'e' and letter 'w' the /ōō/ phoneme #43; and light the block stations for both letters.





(Pass 19)

If the virtual word has the letter 'u', and if the letter 'u' is immediately followed by a consonant, and if the consonant is immediately followed by the letter 'e', then: assign the letter 'e' the silence phoneme #0; assign the letter 'u' the /ōō/ phoneme #43; and light the block station for the letter 'u' and the block station for the letter 'e'.

419

(Pass 20)

If the virtual word has the letter 'o', and if the letter 'o' is immediately followed by the letter 'u', then: assign the letters 'o' and 'u' the /ou/ phoneme #42.; and light the block station for the letter 'o' and the block station for the letter 'u'.

420

(Pass 21)

If the virtual word has the letter 'g', and if the letter 'g' is immediately followed by the letter 'n', then: assign the letter 'g' the silence phoneme #0; the letter 'n' defaults to its normal sound; and light the block station for the letter 'g' and the block station for the letter 'n'.

421

(Pass 22)

If the virtual word has the letter 'y', and if the letter 'y' is immediately preceded by the letter 'o', then:
assign the letter 'o' the /oi/ phoneme #41;
assign the letter 'y' the /oi/ phoneme #41; and light the block station for the letter 'o' and the block station for the letter 'y'.

422

(Pass 23)

If the virtual word has the letter 'h', and if the letter 'h' is directly preceded by the letter 'w', then: assign the letter 'w' the /hw/ phoneme #24; assign the letter 'h' the /hw/ phoneme #24; and light the block station for the letter 'w' and the block station for the letter 'h'.

423

(424)

Fig. 11e





(Pass 24)

If the virtual word has two vowels, and if the word ends in the letter 'e', and

if the letter that directly precedes the letter 'e' is a consonant, then:

assign the letter 'e' the silence phoneme #0;

if the letter directly preceding the consonant is the letter 'a', assign the letter 'a' the \sqrt{a} phoneme #26;

else if the letter directly preceding the consonant is the letter 'e', assign the letter 'e' the $/\bar{e}/$ phoneme #27;

else if the letter directly preceding the consonant is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;

else if the letter directly preceding the consonant is the letter 'o', assign the letter 'o' the /ō/ phoneme #29;

else if the letter directly preceding the consonant is the letter 'u', assign the letter 'u' the /ū/ phoneme #43; and

light the block station for the letter 'e' and the block station for the vowel that directly precedes the consonant.

424

(Pass 25)

If the virtual word has two vowels, and if the word ends in the letters 'ed', and

if the letter that directly precedes the letter 'e' is a consonant, then:

assign the letter 'e' the silence phoneme #0;

if the letter directly preceding the consonant is the letter 'a', assign the letter 'a' the /a/ phoneme #26:

else if the letter directly preceding the consonant is the letter 'e', assign the letter 'e' the /ē/ phoneme #27;

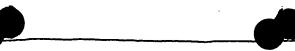
else if the letter directly preceding the consonant is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;

else if the letter directly preceding the consonant is the letter 'o', assign the letter 'o' the /ō/ phoneme #29;

else if the letter directly preceding the consonant is the letter 'u', assign the letter 'u' the $/\bar{u}$ / phoneme #43; and

light the block station for the letter 'e' and the block station for the vowel that directly precedes the consonant.





(Pass 26)

If the virtual word has two vowels, and if the word ends in the letters 'es', and

if the letter that directly precedes the letter 'e' is a consonant, then:

assign the letter 'e' the silence phoneme #0;

if the letter directly preceding the consonant is the letter 'a', assign the letter 'a' the \sqrt{a} phoneme #26;

else if the letter directly preceding the consonant is the letter 'e', assign the letter 'e' the /ē/ phoneme #27;

else if the letter directly preceding the consonant is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;

else if the letter directly preceding the consonant is the letter 'o', assign the letter 'o' the /ō/ phoneme #29;

else if the letter directly preceding the consonant is the letter 'u', assign the letter 'u' the $/\bar{u}$ / phoneme #43; and

light the block station for the letter 'e' and the block station for the vowel that directly precedes the consonant.

426

(Pass 27)

If the virtual word has two vowels, and if the word ends in the letters 'er', and

if the letter that directly precedes the letter 'e' is a consonant, then: assign the letter 'e' the /û/ phoneme #38;

if the letter directly preceding the consonant is the letter 'a', assign the letter 'a' the $/\bar{a}/$ phoneme #26;

else if the letter directly preceding the consonant is the letter 'e', assign the letter 'e' the $/\bar{e}/$ phoneme #27;

else if the letter directly preceding the consonant is the letter 'i', assign the letter 'i' the /ī/ phoneme #28;

else if the letter directly preceding the consonant is the letter 'o', assign the letter 'o' the /ō/ phoneme #29;

else if the letter directly preceding the consonant is the letter 'u', assign the letter 'u' the $/\bar{u}$ / phoneme #43; and

light the block stations for the letters 'e' and 'r' and the block station for the vowel that directly precedes the consonant.







(Pass 28)

If the virtual word has the letter 'u', and if the letter 'u' is directly preceded by the letter 'q', then:
assign the letter 'q' the /k/ phoneme #7;
assign the letter 'u' the /w/ phoneme #16; and light the block station for the letter 'q' and the block station for the letter 'u'.

428

(Pass 29)

If the virtual word has the letter 'p', and if the letter 'p' is directly followed by the letter 'h', then:
assign the letter 'p' the /f/ phoneme #3;
assign the letter 'h' the /f/ phoneme #3; and light the block station for the letter 'p' and the block station for the letter 'h'.

429

(Pass 30)

If the virtual word has the letter 'n', and if the letter 'n' is directly followed by the letter 'g', then:
assign the letter 'n' the /ng/ phoneme #25;
assign the letter 'g' the /ng/ phoneme #25; and light the block station for the letter 'n' and the block station for the letter 'g'.

430

(Pass 31)

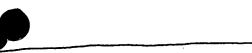
If the virtual word has the letter 's', and if the letter 's' is directly followed by the letter 'h', then:
 assign the letter 's' the /sh/ phoneme #20;
 assign the letter 'h' the /sh/ phoneme #20; and light the block station for the letter 's' and the block station for the letter 'h'.

431

(Pass 32)

If the virtual word has the letter 't', and if the letter 't' is directly followed by the letter 'h', then:
assign the letter 't' the /th/ phoneme #22;
assign the letter 'h' the /th/ phoneme #22; and light the block station for the letter 't' and the block station for the letter 'h'.







If the virtual word has the letter 'a', and if the letter 'a' is directly followed by the letter 'w', then: assign the letter 'a' the /ô/ phoneme #40; assign the letter 'w' the /ô/ phoneme #40; and light the block station for the letter 'a' and the block station for the letter 'w'.

433

(Pass 34)

If the virtual word has the letter 'a', and if the letter 'a' is directly followed by the letter 'i', then: assign the letter 'a' the /a/ phoneme #26; assign the letter 'i' the /a/ phoneme #26; and light the block station for the letter 'a' and the block station for the letter 'i'.

(Pass 35)

If the virtual word has the letter 'o', and if the letter 'o' is directly followed by the letter 'a', then: assign the letter 'o' the /o/ phoneme #29; assign the letter 'a' the /o/ phoneme #29; and light the block station for the letter 'o' and the block station for the letter 'a'. 435

(Pass 36)

If the virtual word has the letter 'e', and if the letter 'e' is directly followed by the letter 'a', then: assign the letter 'e' the /e/ phoneme #27; assign the letter 'a' the /e/ phoneme #27; and light the block station for the letter 'e' and the block station for the letter 'a'.







(Pass 37)

If the virtual word has the letter 'd', and if the letter 'd' is directly preceded by the letter 'l', and if the letter 'l' is directly preceded by the letter 'u', and if the letter 'u' is directly preceded by the letter 'o', then: assign the letter 'o' the /ŏŏ/ phoneme #44; assign the letter 'u' the /ŏŏ/ phoneme #44; assign the letter 'l' the silence phoneme #0; assign the letter 'd' the /d/ phoneme #2; and light the block stations for the letters 'o', 'u', 'l', and 'd'.

(Pass 38)

437

If the virtual word has the letter 'n', and if the letter 'o' is directly preceded by the letter 'o', and if the letter 'o' is directly preceded by the letter 'i', and if the letter 'i' is directly preceded by the letter 't', then:

assign the letter 't' the /sh/ phoneme #20;
assign the letter 'i' the /sh/ phoneme #20;
assign the letter 'o' the /9/ phoneme #36;
assign the letter 'n' the /n/ phoneme #10; and light the block stations for the letters 't', 'i', 'o', and 'n'.

438

(Pass 39)

If the virtual word has the letter 'n', and if the letter 'n' is directly preceded by the letter 'o', and if the letter 'o' is directly preceded by the letter 'i', and if the letter 'i' is directly preceded by the letter 's', then:

assign the letter 's' the /sh/ phoneme #20;
assign the letter 'i' the /sh/ phoneme #20;
assign the letter 'o' the /9/ phoneme #36;
assign the letter 'n' the /n/ phoneme #10; and light the block stations for the letters 's', 'i', 'o', and 'n'.





(Pass 40)

If the virtual word has the letter 'c', and if the letter 'c' is directly preceded by or directly followed by another letter 'c', and if the two letter 'c's are directly followed by the letter 'e', or the letter 'i', then: assign the first letter 'c' the /k/ phoneme #7; assign the second letter 'c' the /s/ phoneme #13; and

light the block stations for the first letter 'c', the second letter 'c', and the letter 'e' or 'i'

(Pass 41)

If the virtual word has the letter 'o', and if the letter 'o' is directly followed by the letter 'i', then:
assign the letter 'o' the /oi/ phoneme #41;
assign the letter 'i' the /oi/ phoneme #41; and light the block station for the letter 'e' and the block station for the letter 'i'.

(Pass 42)

If the last letter of the virtual word is the letter 's', then: assign the letter 's' the /z/ phoneme #18.

442

(Pass 43)

If the virtual word has the letter 'h', and if the letter 'h' is directly preceded by the letter 'c', and if the letter 'c' is directly preceded by the letter 't', then: assign the letter 't' the silence phoneme #0; and light the block stations for the letters 't', 'c', and 'h'.

443

(Pass 44)

If the virtual word has the letter 'r' or the letter 'k', and if the letter 'h' immediately follows the letter 'r', or the letter 'k', then: assign the letter 'h' the silence phoneme #0; and light the block stations for the letter 'h', and the letter 'k' or 'r'.

111

¥ 445

Fig. 11K





(Pass 45)

If the virtual word has the letter 'm', and if the letter 'm' is directly followed by the letter 'b', then: assign the letter 'b' the silence phoneme #0; and light the block stations for the letters 'm', and 'b'.

445

(Pass 46)

If the virtual word has the letter 'k' or the letter 'm', and if the letter 'l' immediately precedes the letter 'k', or the letter 'm', then: assign the letter 'l' the silence phoneme #0; and light the block stations for the letter 'l', and the letter 'm' or 'k'.

446

(Pass 47)

If the virtual word has the letter 'b', and if the letter 'b' is directly followed by the letter 't', then: assign the letter 'b' the silence phoneme #0; and light the block stations for the letter 'b', and the letter 't'.

447

(Pass 48)

If the virtual word has the letter 'm', and if the letter 'm' is directly followed by the letter 'n', then: assign the letter 'n' the silence phoneme #0; and light the block stations for the letter 'm', and the letter 'n'.

448

(Pass 49)

If the last letter in the virtual word is 'h', and if the letter 'h' is directly preceded by a vowel, then; assign the letter 'h' the silence phoneme #0; and light the block stations for the letter 'h', and the vowel that precedes the letter 'h'.

449



Fig. II





(Pass 50)

If the first letter in the virtual word is 'w', and if the letter directly following the letter 'w' is the letter 'h', and if the letter directly following the letter 'h' is the letter 'o', then: assign the letter 'w' the silence phoneme #0; and light the block stations for the letters 'w', 'h', and 'o'.

450

(Pass 100)

If the virtual word has the letter 'd', and if the letter 'd' is directly followed by the letter 'g; or the letter 'j', then: assign the letter 'd' the silence phoneme #0; and light the block stations for the letter 'd', and the letter 'g' or 'j'.

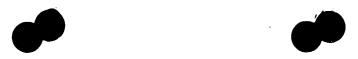
451

(Pass 101)

If the last letter in the virtual word is 'm', and if the letter 'm' is directly preceded by the letter 's', then; assign the letter 's' the /z/ phoneme #18; and light the block stations for the letter 's' and the letter 'm'.

452

Fig. 11m



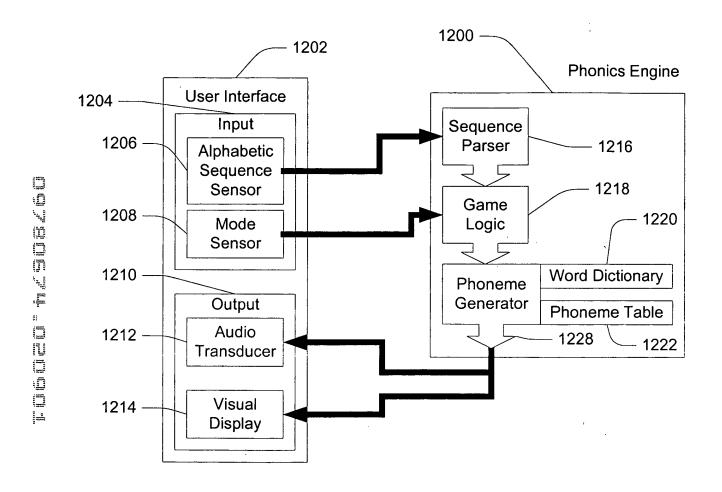


FIG. 12

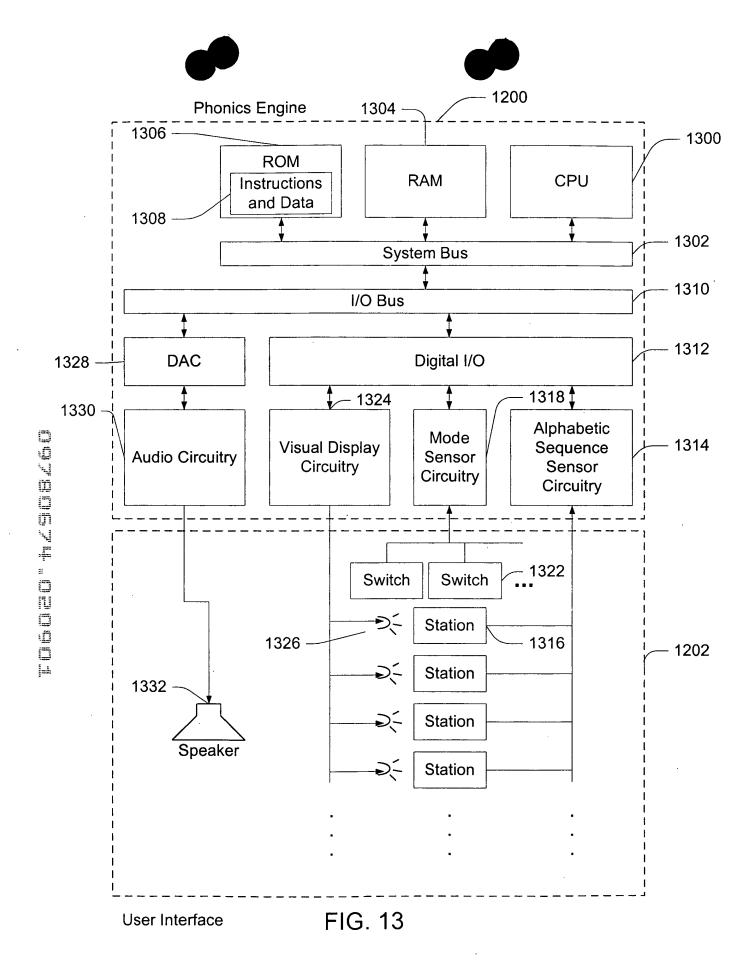


FIG. 14